

Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the application:

1. (Currently Amended): A method for preparing a manganese compound for a lithium manganese complex oxide, comprising the step of simultaneously applying a mechanical force from 0.1 to 1000 dyne/cm<sup>2</sup> and a heat energy from 50 to 200 °C at a time from 5 minutes to 5 hours to a manganese compound to remove defects present in particles of said manganese compound, and to control the aggregation of micro particles and the shape of the aggregated particles.
2. (Previously Presented): The method for preparing the manganese compound according to claim 1, wherein a mechanical force and a heat energy are simultaneously applied to said manganese compound with adding one or more kinds of additives selected from the group consisting of LiOH, LiOH•H<sub>2</sub>O, LiCH<sub>3</sub>COO, LiCHO, LiCHO•H<sub>2</sub>O, LiNO<sub>3</sub>, and a transition metal salt having a melting point of 200°C or less.
3. (Original): The method for preparing the manganese compound according to claim 2, wherein the amount of said preparations is 0 to 20 wt% of the manganese compound.
4. (Previously Presented): The method for preparing the manganese compound according to claim 1, wherein said manganese compound is selected from the group consisting of electrolytic manganese dioxide, chemical manganese dioxide, Mn<sub>2</sub>O<sub>3</sub> and Mn<sub>3</sub>O<sub>4</sub>.
5. (Currently amended): The method for preparing the manganese compound according to claim 2, wherein said manganese compound is selected from the group consisting of electrolytic

manganese dioxide, chemical manganese dioxide  $Mn_2O_3$  and  $Mn_3O_4$ .

6. (Canceled)
7. (Canceled)
8. (Previously Presented): The method for preparing the manganese compound according to claim 1, wherein a manganese compound having a shape without edges is prepared from an angular shaped manganese compound as a raw material and applying mechanical force and heat energy.
9. (Previously Presented): The method for preparing the manganese compound according to claim 2, wherein a manganese compound having a shape without edges is prepared from an angular shaped manganese compound as a raw material and applying mechanical force and heat energy.
10. (Currently Amended): A method for preparing lithium manganese complex oxide with a spinel structure, comprising the steps of:
  - a) mixing
    - (i) a manganese compound prepared by the method comprising the step of simultaneously applying a mechanical force from 0.1 to 1000 dyne/cm<sup>2</sup> and a heat energy from 50 to 200 °C at a time from 5 minutes to 5 hours to a manganese compound to remove defects present in the particles of said manganese compound and to control the aggregation of micro particles and the shape of the aggregated particles; and
    - (ii) a lithium compound ; and
  - b) calcining the mixture prepared in said step (a).
11. (Original): A method for preparing a lithium manganese complex oxide with a spinel structure according to claim 10, wherein the

(ii) lithium compound of step (a) is selected from a lithium salt group consisting of LiOH, LiOH•H<sub>2</sub>O, LiCH<sub>3</sub>COO, LiCHO, LiCHO•H<sub>2</sub>O and LiNO<sub>3</sub>.

- 12.(Original): A method for preparing the lithium manganese complex oxide with a spinel structure according to claim 10, wherein the temperature of calcination of said step (b) is 400 to 900 °C, and the time of calcination is 1 to 30 hours.
- 13.(Original): A method for preparing the lithium manganese complex oxide with a spinel structure according to claim 11, wherein the temperature of calcination of said step (b) is 400 to 900 °C, and the time of calcination is 1 to 30 hours.
- 14.(Currently Amended): A lithium or lithium ion secondary battery comprising an anode, an electrolyte and a cathode using a lithium manganese complex oxide powder with a spinel structure as an active material, wherein said active material is a lithium manganese complex oxide with a spinel structure prepared by the method comprising the steps of:
  - a) mixing
    - (i) a manganese compound prepared by the method comprising the step of simultaneously applying a mechanical force from 0.1 to 1000 dyne/cm<sup>2</sup> and a heat energy from 50 to 200 °C at a time from 5 minutes to 5 hours to a manganese compound to remove defects present in particles of the manganese compound and to control the aggregation of micro particles and the shapes of the aggregated particles; and
    - (ii) a lithium compound; and
  - b) calcining the mixture.
- 15.(Currently Amended): A method for preparing a manganese compound that is used for preparing a lithium manganese complex oxide, comprising the step of simultaneously applying a

mechanical force from 0.1 to 1000 dyne/cm<sup>2</sup> and a heat energy from 50 to 200 °C at a time from 5 minutes to 5 hours to a manganese compound to remove defects present in particles of said manganese compound, and to control the aggregation of micro particles and the shape of the aggregated particles.

- 16.(New): The method for preparing a manganese compound according to claim 1, wherein a mechanical force and a heat treatment is applied in an apparatus which applies shear stress to the surface of particles and to which a heating apparatus is attached.
- 17.(New): The method for preparing a manganese compound according to claim 16, wherein the manganese compound gathers along a rotating chamber wall and receives shear stress and compression at a fixing axis of the apparatus.
- 18.(New): The method for preparing a manganese compound according to claim 16, wherein the apparatus is a mechanofusion mill.